

$$H = A \oplus B, \quad S = H \oplus C_{in}, \quad C_{OUT} = H(A) + H(C_{in})$$

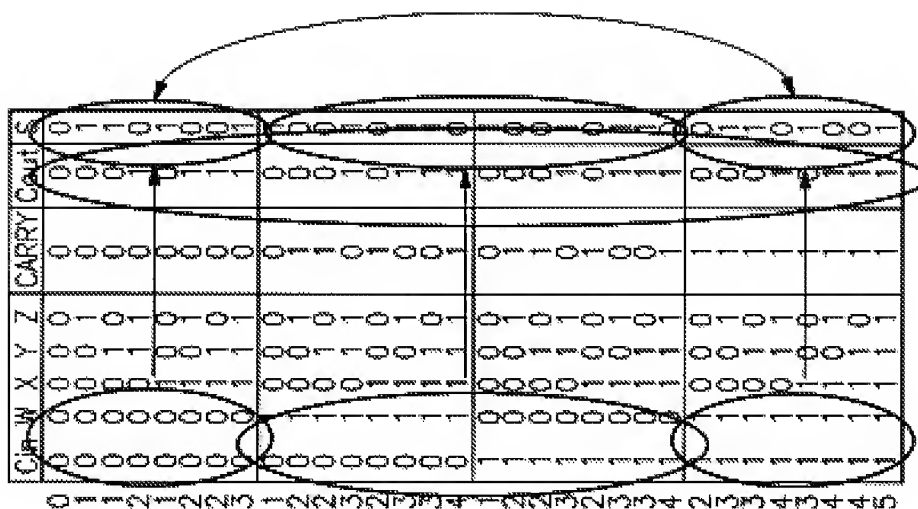


FIG. 3B

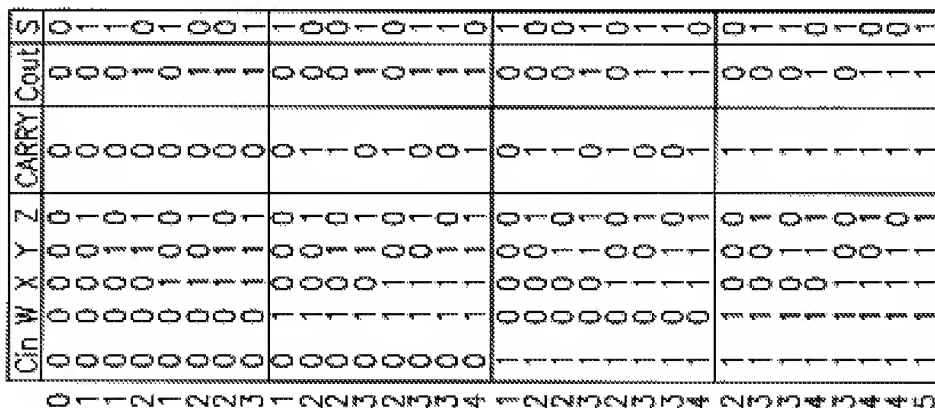


FIG. 3A

	C _{in}	W	X	Y	Z	CARRY	Cout	S
0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	0	0	1
1	0	0	0	1	0	0	0	1
2	0	0	0	1	1	0	1	0
1	0	0	1	0	0	0	0	1
2	0	0	1	0	1	0	1	0
2	0	0	1	1	0	0	1	0
3	0	0	1	1	1	0	1	1
1	0	1	0	0	0	1	0	1
2	0	1	0	0	1	1	0	0
2	0	1	0	1	0	1	1	1
3	0	1	0	1	1	1	1	0
3	0	1	1	0	0	1	1	0
4	0	1	1	0	1	1	1	1
4	0	1	1	1	0	1	1	0
5	0	1	1	1	1	1	1	0
1	1	0	0	0	0	0	0	1
2	1	0	0	0	1	0	0	0
2	1	0	0	1	0	0	0	0
3	1	0	0	1	1	0	0	0
3	1	0	1	0	0	0	0	0
4	1	0	1	0	1	0	0	0
4	1	0	1	1	0	0	0	0
5	1	0	1	1	1	0	0	0
1	1	1	0	0	0	1	0	1
2	1	1	0	0	1	1	0	0
2	1	1	0	1	0	1	0	0
3	1	1	0	1	1	1	0	0
3	1	1	1	0	0	1	0	0
4	1	1	1	0	1	1	0	0
4	1	1	1	1	0	1	0	0
5	1	1	1	1	1	1	0	0

C _{in} ⊕W	CARRY	Cout	SUM
0	0	C _o	S
1	1	C _o	\bar{S}

FIG.3D

FIG.3C

